## **DEUTZ AG**

EXECUTIVE ORDER U-R-013-0119

New Off-Road
Compression-Ignition Engines

Pursuant to the authority vested in the Air Resources Board by Sections 43013, 43018, 43101, 43102, 43104 and 43105 of the Health and Safety Code; and

Pursuant to the authority vested in the undersigned by Sections 39515 and 39516 of the Health and Safety Code and Executive Order G-02-003;

IT IS ORDERED AND RESOLVED: That the following compression-ignition engines and emission control system produced by the manufacturer are certified as described below for use in off-road equipment. Production engines shall be in all material respects the same as those for which certification is granted.

MODEL YEAR	ENGINE FAMILY	DISPLACEMENT (liters)	FUEL TYPE	USEFUL LIFE (hours)
2004	4DZXL07.1005	4.76	Diesel	8000
SPECIAL	FEATURES & EMISSION		TYPICAL EQUIPMENT A	PPLICATION
Direct Dies	el Injection, Smoke Puff	Limiter, Turbocharger	Generator Set, Industria	al Equipment

The engine models and codes are attached.

The following are the exhaust certification standards (STD) and certification levels (CERT) for hydrocarbon (HC), oxides of nitrogen (NOx), or non-methane hydrocarbon plus oxides of nitrogen (NMHC+NOx), carbon monoxide (CO), and particulate matter (PM) in grams per kilowatt-hour (g/kw-hr), and the opacity-of-smoke certification standards and certification levels in percent (%) during acceleration (Accel), lugging (Lug), and the peak value from either mode (Peak) for this engine family (Title 13, California Code of Regulations, (13 CCR) Section 2423):

RATED POWER	EMISSION STANDARD			- {	EXHAUST (g/kw-l	1r)	<b></b> .	OI	PACITY (%	<del>(</del> )
CLASS	CATEGORY		нс	NOx	NMHC+NOx	CO	PM	ACCEL	LUG	PEAK
37 ≤ kW < 75	Tier 2	STD	N/A	N/A	7.5	5.0	.40	20	15	50
		CERT	-	-	7.1	3.1	.30	6	4	10

BE IT FURTHER RESOLVED: That for the listed engine models, the manufacturer has submitted the information and materials to demonstrate certification compliance with 13 CCR Section 2424 (emission control labels), and 13 CCR Sections 2425 and 2426 (emission control system warranty).

Engines certified under this Executive Order must conform to all applicable California emission regulations.

This Executive Order is only granted to the engine family and model-year listed above. Engines in this family that are produced for any other model-year are not covered by this Executive Order.

Executed at El Monte, California on this \_\_\_\_\_ day of October 2003.

Allen Lons, Chief

Mobile Source Operations Division

## **ENGINE MODEL SUMMARY FORM**

U-R-013-0119

EPA Family Name: #DZXL07.1005 Mfr. Family Name: BF4M103E, D5D Process Code: New Submission Engine Category: Nonroad CI Manufacturer: DEUTZ AG

1. Engine code	2. Engine Model 3. BHP@	3. ВНР@	RPM	4. Fuel Rate @ Rated Power (mm3/stroke)	5. Fuel Rate (lbs./hr) Rated Power	6. Peak T @	k Torque (Nm) @ RPM	6. Peak Torque (Nm) 7. Peak Torque @ RPM (mm³/stroke)	8. Fuel Rate (lbs./hr) @ Peak Torque	9. Emission Control Device (SAE J1930)	e S
_	D5DCBE2	100	2100	88.0	35	450	1400	108.0	31	SPL TC	7.00
_	D5DCAE2	95	2100	84.0	33	375	1400	0.06	26	EM, SPL	
	BF4M1013E	100	1800	97.0	35	450	1400	108.0	31	EM, SPL	
	BF4M1013E	100	2000	90.0	35	450	1400	108.0	31	EM, SPL	
	BF4M1013E	100	1900	93.0	35	450	1400	108.0	31	EM, SPL	
CE74,9/4	BF4M1013E	100	2100	88.0	35	450	1400	108.0	31	EM, SPL	
	BF4M1013E	100	2200	85.0	35	450	1400	108.0	31	EM, SPL	
	BF4M1013E	100	2300	83.0	35	450	1400	108.0	31	EM, SPL	
	BF4M1013E	94	1800	91.0	33	375	1400	90.0	26	EM, SPL	
	BF4M1013E	94	1900	88.0	33	375	1400	0.06	26	EM, SPL	
	BF4M1013E	94	2000	85.0	33	375	1400	0.06	26	EM, SPL	
	BF4M1013E	94	2100	83.0	33	375	1400	0.06	26	EM, SPL	
	BF4M1013E	94	2200	81.0	33	375	1400	0.06	26	EM, SPL	
	BF4M1013E	94	2300	78.0	33	375	1400	0.06	26	EM, SPL	